

**AMENDMENTS TO THE SPECIFICATION**

**Please replace the first full paragraph of page 1 with the following amended paragraph:**

The present invention relates to an apparatus and method for detecting a transmission mode in a digital audio receiver adopting an orthogonal frequency division multiplexing (OFDM) scheme for broadcasting, and more particularly, to an apparatus and method for detecting each transmission mode by detecting the starting and ending points of an OFDM signal. The present invention is based on Korean Patent Application No. 200-4731, ~~which is incorporated herein by reference~~

**Please replace the fifth full paragraph of page 11 with the following amended paragraph:**

In particular, the null symbol length determination unit 250 includes a window buffer portion 252, a ~~mean-square~~ sum of squares ratio calculator 254, a null symbol location detector 256, and a step controller 258.

**Please replace the first full paragraph of page 12 with the following amended paragraph:**

The ~~mean-square~~ sum of squares ratio calculator 254 calculates the mean square of the samples stored in the two window buffers W1 and W2. In particular, the mean square value is calculated by dividing the sum  $m1(k)$  of the square of each sample stored in the first window buffer W1 by the sum  $m2(k)$  of the square of each sample stored in the second window buffer W2.

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**Please replace the second full paragraph of page 12 with the following amended paragraph:**

The null symbol location detector 256 determines the starting point of a null symbol by detecting a minimum square value output from the ~~mean-square~~ sum of squares ratio calculator 254 for the first search period, and determines the end point of the null symbol by detecting a maximum mean square value output from the ~~mean-square~~ sum of squares ratio calculator 254 for the second search period. Here, the null symbol location detector 256 outputs a search period control signal for changing one of the first and second search periods to the other search period.

**Please replace the third full paragraph of page 12 with the following amended paragraph:**

Although in the present embodiment the starting point of a null symbol a minimum mean square value output from the ~~mean-square~~ sum of squares ratio calculator 254 for the first search period to be has been determined with the minimum mean square value, it will be apparent that if the ~~mean-square~~ sum of squares ratio calculator 254 calculates the mean square value by dividing  $m_2(k)$  by  $m_1(k)$ , the starting and end points of a null symbol may be determined with the maximum and minimum mean square values, respectively.

**Please replace the first full paragraph of page 13 with the following amended paragraph:**

The step controller 258 changes the search periods for the window buffer portion 252 and the ~~mean-square~~ sum of squares ratio calculator 254, i.e., from the first search period to the second search period, in response to the search period control signal output from the null symbol

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location detector 256. The first search period is determined to be equal to the frame length for MODE 1, which is the longest among the four modes. In order to reduce an error in mode determination, the second search period must be determined to be longer than the null symbol length for MODE 1, which is the longest among the four modes.